



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,222	09/12/2003	Jang Hyun Choi	61282.00008	6829
30256	7590	05/05/2005	EXAMINER	
SQUIRE, SANDERS & DEMPSEY L.L.P. 600 HANSEN WAY PALO ALTO, CA 94304-1043			LAM, CATHY FONG FONG	
			ART UNIT	PAPER NUMBER
			1775	
DATE MAILED: 05/05/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

10

Office Action Summary	Application No. 10/661,222	Applicant(s) CHOI ET AL.	
	Examiner Cathy Lam	Art Unit 1775	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>03-01-2005</u> . | 6) <input type="checkbox"/> Other: ____ |

In view of the amendment and remarks filed on February 3rd 2005, the cancellation of claim 6 is acknowledged. The pending claims are continued to be unpatentable as following:

Specification

Applicant amended the specification such that all the acronyms are followed by its full name. However, RMP refers to general modified polyester, the acronym does not match.

Claim Objections

1. Claims 2-5 are objected to because of the following informalities: applicant is suggested to use "-" between two numeral values, not the approximate sign "≈". Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. Claims 1 and 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, "a layer pretreated by chromate or non-chromate and pretreated with chromate or non-chromate," is confusing as it is unclear whether or not the zinc or zinc alloy plated layer is pretreated with chromate or non-chromate, and the pretreated zinc or zinc alloy plated layer is formed over a chromate or non-chromate pretreated layer? Furthermore, in line 9, applicant uses the term "layer" after "chromate or non-chromate" applicant is required to be consistently throughout. Clarification is required.

In claim 3, the phrase "the total solid of the main resin" is vague and indefinite and lacks antecedent basis.

Claim Rejections - 35 USC § 103

1. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Choi et al (US 6444267) in view of Lee et al (US 6486239).

Choi discloses a gravure transfer coated steel plate comprised of a zinc alloy coated steel plate, a chromate layer, a primer coating layer and an upper coating layer (or top coat); all in the named order.

The zinc alloy coated steel plate is coated with a chromate layer, followed by a primer coating layer (col 2 L 38-45). The primer coating layer is a flexible polyester resin and has a dry film thickness of less than 10 μm (col 2 L 62-65, col 5 L 40-41). The upper coating layer is coated which has a dry film thickness of 7-20 μm , is over the primer coating layer (col 6 L 53-55).

The upper coating layer is polyester resin with an average MW of 5000-20000, a T_g of from 40-70 °C; the polyester resin is mixed with a hydrocarbon based solvent and an ester based solvent (ie oil free), and with a melamine as a crosslinking agent (col 4 L 60-64).

Choi also teaches that the chromate layer has a density of 20-38 mg/m^2 (col 5 L 27-28).

Choi teaches that the primer coating layer comprises 0.3 to 3% of isocyanate but is silent about the polyester upper coating layer containing a polyisocyanate compound.

Art Unit: 1775

Lee discloses a polyester based coating composition which is used for anti-stain precoated metal. The precoated metal is particularly a metallized steel e.g. zinc coated steel (col 1 L 58 & col 7 L 40-45).

The polyester based coating composition is comprised of a hydroxy unsaturated polyester resin, a melamine curing agent and an isocyanate compound (col 2 L 31-35).

The coating composition is comprised of 40-80 wt% hydroxy unsaturated polyester resin, 5-50 wt% of the melamine curing agent and 1-10 wt% of the isocyanate compound (col 2 L 53-64).

The hydroxy unsaturated polyester resin is an oil free polyester modified resin which has a MW of 2000-7000, T_g of from -15 to 45°C and the OH value of 20-150 (col 3 L 27-38).

In view of the prior art teachings, one skill in the art would include polyisocyanate in the polyester upper coating as well because isocyanate resin is known to be used as assistant crosslinking resin (Choi, col 3 L 36-48).

Response to Arguments

2. Applicant's arguments filed on February 3rd 2005 have been fully considered but they are not persuasive.

Applicant picks and chooses the portions of the references and calls them irrelevant art. In fact, both Choi and Lee in combination teach the present invention and the claims are obvious over these prior art. The examiner is continued to rely on these two references and sustaining the art rejection.

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cathy Lam whose telephone number is (571) 272-1538. The examiner can normally be reached on 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (571) 272-1535. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1775

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Cathy Lam
Primary Examiner
Art Unit 1775

cfl
April 29, 2005